



HIU Highlights Report No.16 **March 1 – July 31, 2007**

The Humanitarian Information Unit serves as a USG interagency center to identify, collect, analyze, and disseminate unclassified information critical to USG decision makers and partners in preparation for and response to humanitarian emergencies worldwide, and to promote best practices for humanitarian information management.

Highlights Transitions to HIU Website:

Have you visited the HIU's new website? <http://hiu.state.gov> It offers all the new products in this Highlights report and others. We wish to note that future Highlights reports – as well as HIU news and analysis will be posted on our redesigned website.

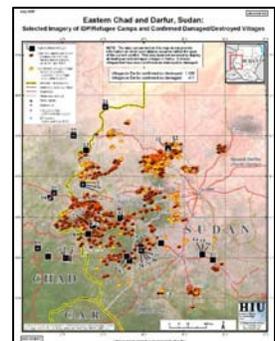


The HIU website is accessible without a user login to all Department of State (DOS) OpenNet users. All users outside the DOS OpenNet network are required to register a username and password prior to browsing the site. If you experience any issues while using our site or wish to offer useful feedback on the new website, we encourage you to contact our webmaster at: HIU_INFO@state.gov

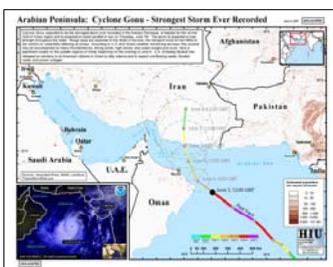
Status of Select Initiatives:

Darfur, Sudan

Damaged Villages: For June 20 World Refugee Day, the HIU produced a poster titled "[Selected Satellite Imagery of Eastern Chad and Darfur, Sudan: IDP Camps, Confirmed Damaged and Destroyed Villages.](#)" The poster includes a map depicting more than 1,600 villages confirmed destroyed or damaged, as well as recent high-resolution imagery of some of those villages. The HIU updates the Darfur products on a regular basis. This particular update was provided to the Department of State's Bureau of Refugees, Population, and Migration as well as to the Secretary of State's delegation to the June 25 Paris Darfur conference. Additional [imagery examples](#) of damaged and destroyed villages are available on the HIU website. POC: Dennis King, KingDJ2@state.gov



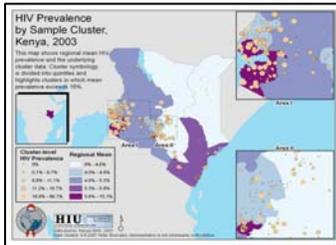
Early Warning



Cyclone Gonu Hits the Arabian Sea: On June 5, in anticipation of Cyclone Gonu, the strongest storm ever recorded in the Arabian Peninsula, the HIU prepared a map showing the [anticipated storm track and the population density](#) of the expected affected region. The storm produced rough seas in the Strait of Hormuz, causing temporary disruption of the transport route for oil produced in the Middle East.

This cyclone was accompanied by heavy thunderstorms, strong winds, high waves, and ocean surges that flooded some coastal regions of Oman. POC: Jordan Muller, MullerJR@state.gov

GIS in support of the President's Emergency Plan For AIDS Relief (PEPFAR)



GIS in Humanitarian Affairs: HIU continues its support of the President's Emergency Plan for AIDS Relief (PEPFAR). Public health analyst Heard produced two map series of PEPFAR Focus Countries that depict increases in the coverage of AIDS drugs. The first shows large increases in antiretroviral coverage between 2003, before PEPFAR, and 2006, two years into PEPFAR.

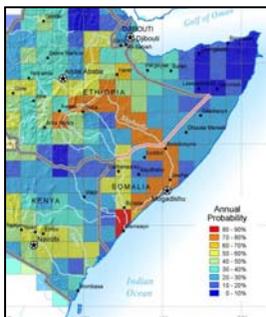
The second series shows increases in coverage of drugs for the prevention of mother to child transmission (PMTCT) between the years 2004 and 2006. Antiretroviral prophylaxis can reduce the risk of mother to child transmission by approximately 75 percent.

The HIU is also exploring new methods of mapping HIV surveillance data to improve understanding of local variations in prevalence. PEPFAR can use this kind of geographic information product to target service delivery more effectively. A [map of Kenya](#) showed that prevalence varies from zero in some local communities to as high as 67 percent in others.

Côte d'Ivoire: Field Support Maps: In advance of Ambassador Dybul's trip to Cote d'Ivoire in July, the PEPFAR country team requested HIU produce maps that document progress towards increased HIV/AIDS service coverage. HIU responded to the request with eight maps, including estimations of the spatial distribution of coverage of antiretroviral therapy and prevention of mother-to-child transmission services. The map products demonstrate how HIU combines secondary data analysis with data generated in the field through programming to create a picture of how PEPFAR is progressing towards the fulfillment of its goals. POC: Nathan Heard, heardnj@state.gov

Horn of Africa: Recommendations and Reports

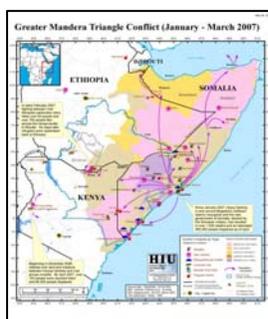
Natural Hazards: On June 27, 2007, the HIU released a study entitled "[Horn of Africa \(HOA\): Natural Hazard Probability and Risk.](#)" The study considered four types of natural hazards (droughts, floods, earthquakes and locust infestations) in Djibouti, Ethiopia, Eritrea, Kenya, and Somalia. The selected hazards offer a good representation of several types of risk; including rapid onset versus slower onset hazards as well as those that primarily affect infrastructure versus those that primarily affect income and health. The analyses presented in the report determine the annual probabilities from each hazard source individually and from drought, flooding, and locusts collectively. The resulting probability estimates for each hazard type are combined with measures of societal exposure to derive and map the risk associated with these four natural hazards. Calculations of joint probability of drought, flooding, and locust infestation suggest that most regions of the Horn could expect to receive a natural disaster on an annual to semi-annual basis with drought being the most probable over the most land area, followed by flooding. We welcome your feedback on this product and especially wish to thank those of you who have contributed to the development of this product. We are willing to share the data used in developing this analysis to those interested. POC: Paul Bartel, BartelP@state.gov and Dr. Jordan Muller, MullerJR@state.gov



The [full report](#), [executive summary](#), and a [poster](#) describing the analysis and methodology is downloadable from the [HIU website](#).

Market Access: As a proof-of-concept product, the HIU developed a [Market Access model](#) for the Horn of Africa. This model is designed to determine travel time to key markets in the region. The analysis resulted in products: a map of travel time to approximately thirty cities in the region, a map of travel time to key ports and capital cities (nine in total), and a map describing the impacts of the November 2006 floods in the “Greater Mandera” zone. Looking ahead, the model has potentially broader applications in addressing humanitarian emergencies. For example, it can be used to consider the impacts of ethnic population composition and distribution on trade, the identification of optimal transportation routes for the transport of relief supplies, as well as the movement of populations and livestock herds as a result of climatic or other events. Such a representation may reflect linkages between tribes and clans as well as the ongoing or residual impact of ethnic conflict. The model is built in ArcGIS ModelBuilder and is stored as a tool so that it can be shared with others and adapted for future uses in other areas. The data used in developing the model, as well as the ModelBuilder Toolbox files is available for download to interested parties. POC: Paul Bartel. BartelP@state.gov

Conflict: The HIU created a [new VISTA product](#) to update the [2006 Conflict Incident map](#) for the Greater Mandera Triangle, a transnational area that comprises southern Somalia, southeastern Ethiopia and northeastern Kenya. The new VISTA displays locations and types of conflict incidents for the first quarter of 2007. The VISTA’s first page maps historic Somali clan areas; clan attacks, livestock raids, and other conflict incidents; and conflict-generated internally displaced and refugee population movements as of April 2007. The second page places incidents into temporal and comparative context: a) bar chart indicating the increasing number of people killed during the first three months of 2007 and b) pie chart displaying the reported number of people killed according to type of conflict. POC: Dennis King, KingDJ2@state.gov



All of the above products are available on the [Horn of Africa Information Management section](#) of the HIU website.

Avian Influenza Research and Reports

The HIU has completed the research phase of its study on avian flu. We developed a model that quite accurately forecasts local outbreaks of human avian flu anywhere in the world. We have prepared a report outlining the results of the study. We are working on an annex detailing the methodology used and another annex that reviews the statistical results. These papers will soon be available on the HIU website as will our data set. In addition to these global reviews, we wrote a paper on the resurgence of avian flu outbreaks that occurred in Vietnam during May and June. We have made two presentations to the Department of State’s Avian Influenza Action Group and one presentation to USAID’s Avian Influenza Response Unit. Our aim is to make our research methodology and results available to as many as possible in the hope that they will build on this work. POC: David Dodson, dodsondl@state.gov

Collaboration Efforts:

Seminars, Training, and Courses

Frontiers in Geography and U.S. Foreign Policy: April 17-21 Dr. Taylor and Mr. Heard joined Dr. Schwartz, the Geographer of the United States, in presenting papers on using GIS for complex emergency / humanitarian response and mitigation as part of the Bill Wood Commemorative Session at the 2007 Association of American Geographers Annual Meeting in San Francisco. June 7, Dr. Schwartz also spoke on “Geographic Information for Humanitarian Response” at the Fifth International Symposium on Digital Earth, Berkeley, CA. POC: Dr. Lowry Taylor, taylorlx@state.gov.

AFRICOM: April 24-26 LTC Granfield and others from The Department of State’s Bureau of Intelligence and Research (INR) attended the AFRICOM Intelligence Working Group in Stuttgart. From July 24-27, LTC Granfield and others from the HIU and INR attended the second AFRICOM Intelligence Working Group meetings at the Open Source Center and the Defense Intelligence Agency and gave presentations on HIU and INR capabilities.

AFRICOM’s mission is broadly defined—to coordinate all DOD activities in Africa. The new command will focus on “non-kinetic” activities—essential decisions on the command structure, staff and basing locations have still not been made. Current plans call for AFRICOM initial operational capability by October 2007 and fully operational the following year. POC: LTC Lynda Granfield, granfieldm@state.gov

95th Civil Affairs Brigade: The HIU participated March 15-16 in the first Civil Affairs symposium held at Fort Bragg. LTC Granfield assisted with efforts to establish of a collaborative information environment, known as Civil Information Management (CIM). The 2-day conference provided an overview of what CIM is and the software tools the Civil Affairs community for analyzing the civil terrain. POC: LTC Lynda Granfield, granfieldm@state.gov

DIA Course on Interagency support to Complex Humanitarian Emergencies: On 10 May, LTC Granfield gave a presentation on the HIU and Interagency Information Sharing to thirty students and international officers attending the Intelligence Support to Multinational Operations Course at the DIA Intelligence School at Bolling Air Force Base. POC: LTC Lynda Granfield, granfieldm@state.gov

Information Systems for Crisis Response and Management (ISCRAM): May 13-16, Mr. King presented the new prototype information system “[WebVISTA](#) – a humanitarian visual analytics tool” at the ISCRAM 2007 conference on Intelligent Human-Computer Systems for Crisis Response and Management. [ISCRAM](#) is a consortium of U.S. and European universities and disaster research institutes. On June 22, Mr. King gave a presentation on Humanitarian Donor Information Needs and Decision Making at Tilburg University Summer School session on Global Disaster Risk and Humanitarian Assistance for a one week course of approximately twenty graduate students from European and American universities. POC: Dennis King, KingDJ2@state.gov

Human Terrain Team Integrated Planning Team: DOD/OSD established the Human Terrain IPT to ensure implementation of the "Social Science Operational Analysis" task in the Irregular Warfare Roadmap. The IPT meetings are aimed at including social science disciplines to form a Common Operational Picture of the Human Terrain in support of US forces engaged in

counterinsurgency, counterterrorism and SSTR operations. The proof-of-concept is one alternative among many for improving the ability of friendly forces to understand and effectively interact with host populations in areas in which the US is engaged in irregular warfare, which includes Security, Stabilization, Transition and Reconstruction (SSTR) activities. Contact DOD/OSD Ms. Patti Morrissey at patricia.morrissey.ctr@osd.mil. POC: LTC Lynda Granfield, granfieldlm@state.gov

PRT Portal: HIU is participating in a DOD OSD/NII-led effort to develop a collaborative virtual environment PRT Portal for former and current PRT members. This portal will be password protected but available to USG and other personnel for their contributions. Information sharing among PRTs is difficult due to bandwidth issues in Afghanistan for the PRTs and attempts to provide a forum to share valuable information. For more information go to <https://members.prtportal.org> and request a log-in. POC: LTC Lynda Granfield, granfieldlm@state.gov

Other Items of Interest:

HIU in the Media:

Darfur: The HIU's [Darfur Sudan: Confirmed Damaged & Destroyed Villages Map](#) was used during a NBC World Evening news interview with Sudan's president—the first interview he granted to Western media in two years. Some of the Darfur [imagery](#) is available on the HIU site. The HIU also provided data for the [Google Earth-Holocaust Museum](#) site. (<http://www.ushmm.org/googleearth/>)

HIU Staff Changes:

New Staff: *Will Barkan* (Data Specialist) and *Emily McKenzie* (GIS Specialist) joined the HIU team in May 2007. *AJ Ferguson* came on board as a summer intern June-August 2007.

Departing Staff: *Noam Unger* and *Chris Ard* have moved on. The HIU wishes both the best and appreciates all the Darfur-related work they accomplished while in the HIU.

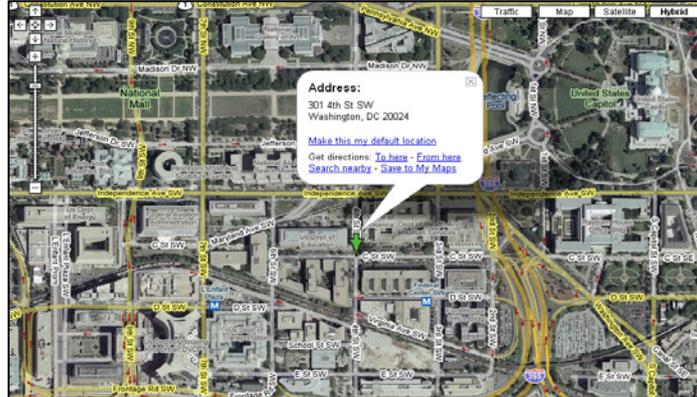
Map Links:

1. Cyclone Gonu – Storm Track and Population Density
 - <http://hiu.state.gov/index.cfm?fuseaction=public.display&id=04673e84-a28c-4f1e-99b2-f13316700efe>
2. Selected Satellite Imagery of Eastern Chad and Darfur, Sudan: IDP Camps, Confirmed Damaged and Destroyed Villages
 - <http://hiu.state.gov/index.cfm?fuseaction=public.display&id=b29303bb-8b49-494c-8ba5-b72cf69a2bda>
3. HIV Prevalence – Kenya
 - <http://hiu.state.gov/index.cfm?fuseaction=public.display&id=7d200510-49fa-4ddd-8319-6502727c6cf4>
4. Greater Mendera Triangle Conflicts VISTA
 - <http://hiu.state.gov/index.cfm?fuseaction=public.display&id=1b5cf230-4b33-4dec-8467-fc06eb46fdee>
5. HOA Market Access Report
 - <http://hiu.state.gov/index.cfm?fuseaction=public.display&id=6038a989-f0fc-4f78-b887-1c3d44bb40a0>
6. HOA Natural Hazards Report
 - <http://hiu.state.gov/index.cfm?fuseaction=public.display&id=2059e1e0-4bbe-4105-9627-8c0d9dc9ea1c>

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Will Barkan (STG contract)	202-203-7773	Paul Bartel (STG contract)	202-203-7787
David Dodson (DOS)	202-203-7910	Emily McKenzie (STG contract)	202-203-7786
Nate Heard (OGAC, STG contract)	202-203-7788	Jean Arkedis (DOS)	202-203-7773